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ABSTRACT

This project sought to reduce incidence of on-the-job accidents by providing safety-related materials and training to teacher aides in special education classrooms. The project produced a 15-minute training videotape as well as written instructional materials from which a safety training handbook was compiled. Following preliminary assessments, the videotape and training materials were field-tested with a total of 160 special education teacher aides in a series of three 10-hour workshops. The handbook developed through the project addressed classroom management skills and provided information for effective management of daily classroom and crisis situations. To assess the effectiveness of the training after program implementation, figures were gathered on accident frequency throughout the Nassau Board of Cooperative Education Services (BOCES), measured in terms of days lost from work. Results found that accidents among special education personnel tended to be more frequent and severe than those in other BOCES divisions. Accident frequencies were found to have decreased somewhat following training. Results of the field testing are detailed in 3 figures and 16 tables. (PB)

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BOARD OF COOPERATIVE EDUCATIONAL SERVICES OF NASSAU COUNTY
Valentines Road and The Plain Road
Westbury, New York 11590

EVALUATION REPORT: SAFETY ORIENTATION AND TRAINING FOR TEACHER AIDES IN SPECIAL EDUCATION CLASSES

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I. PROJECT OVERVIEW

A. Purpose

The purpose of this project was to prevent on-the-job accidents and injuries in classrooms. Research in applied behavioral analysis has enabled school personnel to focus on increasing students' pro-social behaviors, concurrently decreasing inappropriate social behaviors. By maintaining a positive classroom environment, disruptive behaviors are reduced.

Moreover, the severe physical disabilities which characterize many of the special education students at Nassau BOCES warrant specialized training for paraprofessionals who are designated with responsibilities for caretaking (bathroom management, feeding, bus duty).

State funds provided support to develop a videotape and training handbook consisting of materials used for safety training of special education teacher aides. Training would heighten awareness of potential hazards and help aides to develop strategies for preventing on-the-job accidents and injuries.

Prior to this project, teacher aides working in our special education programs had no preparation or training in safety awareness. Such a program was especially warranted in the area of special education where children are more disruptive, volatile, and acting-out than their age-mates.

B. Background and Origins

BOCES serves as an intermediate agency between local school districts in a particular region and the State Education Department, providing diverse educational services and educational and technological resources which would otherwise be impossible for any single district to provide. Nassau BOCES is the largest of New York State's cooperative boards, serving 56 school districts with a total student population of 200,000.

Within the Nassau BOCES, there are five divisions: Business Services, Computers and Communication Services, Instructional Programs and Services, Occupational Education, and Special Education. The project was managed within the Nassau BOCES Division of Special Education, although all the facilities and services of Nassau BOCES were available to the proposed project.

The Division of Special Education provides comprehensive educational services for approximately 1,500 students with severe handicaps, ranging in age from birth to 21 years. Students who attend Nassau BOCES programs can not be served in special education programs in their local districts.

Nassau BOCES relies heavily on the services of teacher aides. Aides provide assistance in managing severely handicapped students, i.e., toileting, dressing, escorting, bussing, supervising, etc. During 1985-1986, the year before this project was planned, Nassau BOCES hired 240 new regular and substitute special education teachers and teacher aides. Virtually none had previous experience with special education youngsters.

The Nassau BOCES Safety Committee, BOCES administrators, and the Planning Committee developed this project to orient special education teacher aides to the severely handicapped population served by Nassau BOCES. The project provided special education teacher aides with knowledge of conditions and training in strategies which will prevent accident and injuries to special education personnel.

C. Project Description

1. Target group

This project served the needs of teacher aides who work for school programs of the Division of Special Education of the Board of Cooperative Educational Services (BOCES) of Nassau County. The project provided safety orientation and training with emphasis on preventing accidents or injury to special education teacher aides.

Approximately two-thirds of teacher aide candidates have been out of the work force for a number of years while they raised a family. Although many applicants had prior experience doing volunteer work in the schools, they have had neither formal theoretical training nor practical orientation to special education. Most applicants were never exposed to the severely handicapped children that attend Nassau BOCES programs.

The remaining one-third of applicants for teacher aide positions are either former teachers (not necessarily special education teachers) who have been out of the work force and have permitted their certifications to lapse, or they are bachelors' degree students who are pursuing teaching certification in evening programs while obtaining work experience during the day.

The project provided orientation and safety training for 75 teacher aides. Aides were trained to understand behaviors, conditions, and strategies that prevent accident and injury to special education personnel. Teacher aides were instructed regarding potentially hazardous situations and behaviors and related precautions.

The project impacted upon an additional 75 teacher aides and an additional 664 special education personnel, including 382 teachers, 64 substitute teachers, and 218 substitute teacher aides who work for the Nassau BOCES Division of Special Education.

The project disseminated a videotape and training handbook to the special education community. The handbook was sent to pupil personnel directors in the 56 Nassau County school districts and distributed to approximately 350 teacher aides.

2. Project Objectives

Project objectives were:

Objective 1: To develop a 15-minute videotape to be used for orientation of special education teacher aides so that they become aware of safety issues.

Objective 2: To develop materials for safety training of special education teacher aides.

Objective 3: To field-test the safety orientation videotape and the training materials with 55 teacher aides in two buildings of the Nassau BOCES special education program.

Objective 4: To develop a training handbook for safety training of special education teacher aides.

Objective 5: To disseminate the safety orientation videotape and the training handbook within the Nassau BOCES special education program, to special education programs in the 56 school districts of Nassau County, and to other special education programs in New York State.

3. Work Plan

The Safety Committee served in an advisory capacity to this 12-month project. The committee consisted of BOCES administrators and representatives of insurance firms who met periodically to guide and monitor project activities, review implementation, and facilitate interagency communication. Members of the Safety Committee observed various training sessions and were continually apprised of ongoing activities.

Field-testing took place in Months 3 through 11. Field-testing consisted of 10 hours of training offered in an orientation meeting and four subsequent 2-hour workshop sessions. This training was provided to 55 teacher aides within three buildings which house Nassau BOCES' special education programs, East Broadway and Pasadena, noncategorical upper elementary programs for 10-14 year olds, and the Carman Road School for the physically handicapped.

Orientation was held in Month 3 of the grant, during the first two days of school when school staff were preparing for the new school year and arrival of the students.

Workshop sessions met beginning in Month 4. Full-time teacher aides attended three workshop sessions during regular workdays.

Training materials were modified as indicated through field-testing and assessment. Modified materials were compiled into a handbook during Months 10 and 11. A safety orientation video was completed.

Project staff meetings were ongoing.

Dissemination activities began at the start of the grant year and continued throughout the project. Project products were distributed in Months 11 and 12.

A final report, based upon data collection which was ongoing throughout the project, was produced in Month 12. Program evaluation included comparison of numbers and types of accidents and injuries pre- and post-training.

Figure 1 presents an activities timeline.

4. Project Staff

All professional positions met personnel requirements of the State of New York and were certified in accordance with New York SED regulations specifically within the area of expertise which they practiced. The agency adheres to federal and state laws requiring fair employment practices and equal opportunity. All positions were filled through regulated recruitment and hiring procedures.

The Assistant Director of Special Education worked in a resource capacity to the project, expediting decisions on policy matters via a direct line of communication to the Nassau BOCES Assistant Superintendent of Special Education.

The Project Coordinator provided liaison to the Assistant Director of Special Education and to the Safety Committee. The Project Coordinator provided continual management of all project components and was responsible for overall planning, meeting objectives, reporting, and directing dissemination activities.

The Educational Consultant assisted in writing a script for the videotape. He wrote the training materials from which a teacher aide safety training handbook was developed, and he provided input for compiling these materials into a training handbook.

The Special Education Professional instructed 55 special education teacher aides, thereby field testing the training materials prior to development of the safety training handbook. Also, she assisted in developing the script for the videotape.

The Evaluation Consultant developed assessment instruments, conducted data analyses, and prepared evaluation reports.

The Information Specialist developed an orientation videotape and safety training handbook.

Figure 1 Activities Timeline

	1988						1989					
	1 July	2 August	3 Sept.	4 October	5 Nov.	6 Dec.	7 Jan.	8 Feb.	9 March	10 April	11 May	12 June
Hire project staff	x											
Develop safety orientation videotape	x	x										
Planning committee meetings			x		x		x		x		x	x
Develop training materials	x	x										
Develop assessment instrumentation		x	x									
Field test videotape and training materials through provision of safety training to 55 special education teacher aides in 2 buildings										x	x	
Conduct assessment			x								x	
Analyze data			x								x	
Compile handbook										x	x	
Monthly reports to the Division of Safety and Health, NYS Department of Labor	x	x	x	x	x	x	x	x	x	x	x	x
Dissemination	x	x	x	x	x	x	x	x	x	x	x	x
Mail special education teacher aides handbooks to 56 Nassau County school districts												x
Final evaluation report												x

The Nassau BOCES Office of Educational Communications of the Division of Computers and Communication Services assisted the Information Specialist in developing the videotape and was responsible for its technical production.

A Secretary was employed by the project.

Figure 2 presents the project management chart.

II. PROJECT EVALUATION

A. Evaluation Plan

Evaluation tasks included development of documentation and recordkeeping forms, development of assessment instruments (for curriculum assessment and videotape assessment), data collection, data analysis, and preparation of evaluation reports. Evaluation processes took the form of qualitative descriptions, listings of activities, and comparisons of accidents and injuries before and after the project.

The Project Coordinator prepared monthly reports addressing the extent to which the mechanisms were in place for achieving Objectives 1 through 4. The reports operated as an overview of the project in ascertaining that program activities were implemented as planned and that the requirements of time scheduling were met.

A summative evaluation determined if expected outcomes were achieved. The summative evaluation questions, activities, and procedures for each objective are outlined below.

Evaluation Question 1: Has a safety orientation videotape been developed for orientation of teacher aides so that they become aware of safety issues?

Evaluation Question 2: Have materials for safety training of special education teacher aides been developed?

Evaluation Question 3: Have the videotape and the training materials been field-tested with 55 teachers in two buildings of the Nassau BOCES special education program?

Evaluation Question 4: Has the project developed a handbook for safety training of special education teacher aides?

Evaluation Question 5: Have the safety orientation videotape and the training handbook been disseminated within the Nassau BOCES special education program, to special education programs in the 56 school districts of Nassau County, and to other special education programs in New York State?

Figure 3 presents a program plan chart, including objectives, activities, and evaluation tasks.

Figure 2. Project Management Chart

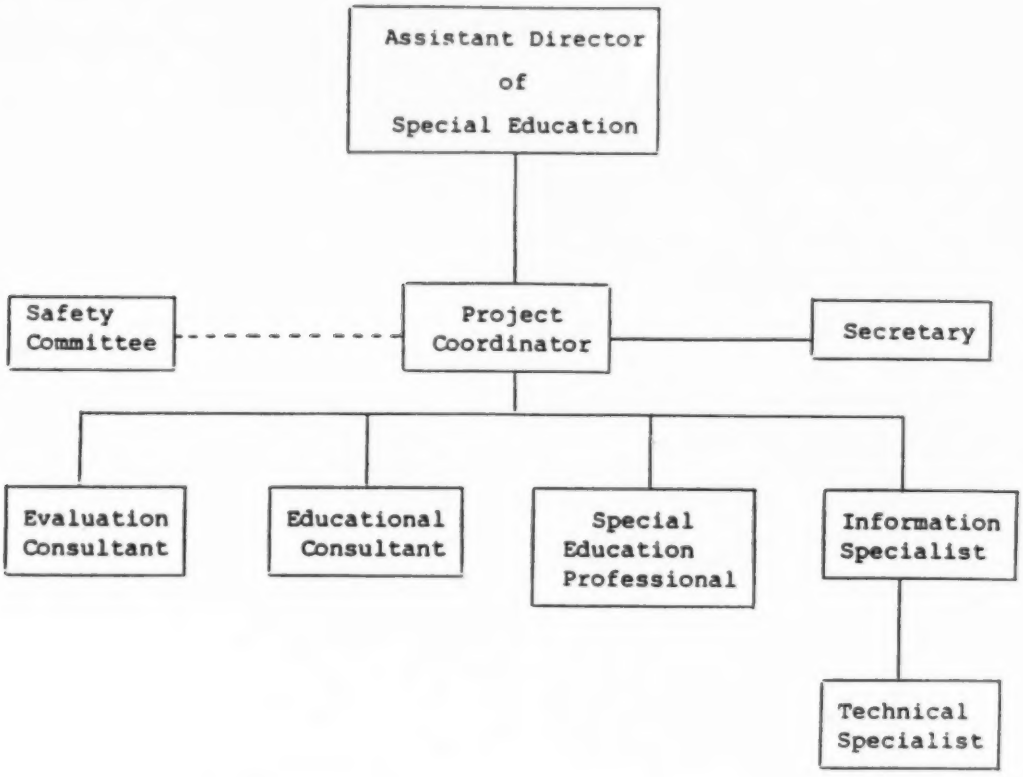

Figure 3. Program Plan Chart

Operational Objectives	Activities	Evaluation
1. To develop a 15-minute videotape to be used for orientation of special education teacher aides so that they become aware of safety issues.	Information Specialist, Educational Consultant, planning team, and special education professional will develop a videotape with ongoing input from administrators, special education teachers, and teacher aides. Educational Computer Center will provide technical support.	Documentation of planning and development activities.
2. To develop materials for safety training of special education teacher aides.	Educational Consultant will develop training materials with input from planning team and special education professional. Modifications will be made as needed.	Assessment of training materials based on relevance, clarity, effective use of teaching materials, appropriate methods, effective use of examples, etc.
3. To field-test the safety orientation videotape and the training materials in 2 buildings of the Nassau BOCES special education program.	Field-testing. Experienced special education professional will provide ten hours of safety orientation and training to 55 teacher aides at Pasadena Upper Elementary School (noncategorical program) and the Carman Road School for the Physically Handicapped.	Assessment of the orientation and training. Pre-posttests on safety skills and knowledge will be developed and administered to a sample of participants. Comparison of accidents and injuries to special education personnel pre- and post training. Comparison of numbers of accidents and injuries in the two buildings where program is field-tested and the 9 buildings which had no safety training program.
4. To develop a training handbook for safety training of special education teacher aides.	Assisted by the Educational Consultant, the Special Educational Professional, and the Evaluation Consultant, the Information Specialist will compile handbook using field-tested training materials.	Documentation of changes to training materials. Production of the teacher aide training handbook.
5. To disseminate the safety orientation videotape and the training handbook within the Nassau BOCES special education program, to special education programs in the 56 school districts of Nassau County, and to other special education programs in New York State.	Videotape library Dissemination of training handbook Participation in conferences Provision of information to NYS Education Department Technical assistance and support to districts Provide information to parents, professional groups, service providers, public school staff, and agencies.	Documentation of dissemination activities. Dissemination lists.

B. Objective 1 Results: Safety Training Videotape

Development of products was a team effort, utilizing expertise of staff with diverse capabilities. A 15-minute videotape was produced via a five-step process: (1) an outline, (2) a story board, (3) a script, (4) editing, and (5) dubbing and voice-over.

Rough edits of the videotape were viewed and assessed by two administrators, four special education teachers, and four special education teacher aides. Modifications were discussed and implemented as needed. Activities conducted to develop the videotape were documented.

The videotape used an investigative reporting documentary format similar to a "60 Minute" segment. First, teacher aide duties were described. Basic approaches to safety were explained including appropriate dressing for work, using nonverbal cues, and effective/ineffective questions for controlling misbehavior. Simulated classroom situations demonstrated common hazards to personnel safety and demonstrated techniques and solutions for reducing risk of accident and injury to special education personnel using real students. Techniques for feeding and for lifting children were demonstrated. The videotape stressed the importance of knowing about interventions which are appropriate and inappropriate for use with specific students and the importance of participation in team meeting.

C. Objective 2 Results: Safety Training Materials

With input from the special education professional, an expert in special education behavior management developed training materials from which a safety training handbook was compiled. Instructional content described special education populations, analyzed accidents and injuries to special education personnel, and presented strategies to prevent accidents and injuries.

Major subject areas included:

- Identifying potentially hazardous situations
- Recognizing hazardous situations which may be associated with particular student disabilities
- Increasing awareness of students' needs relative to safety
- Increasing awareness of needs relative to safety of specialized or adapted equipment
- Anticipating types of student behaviors that can be expected in specific situations
- Applying strategies to avoid accidents and injuries

- Applying problem-solving skills, selecting alternatives, and taking appropriate action to avert potentially hazardous situations
- Communicating effectively in emergencies
- Developing safe work habits, behaviors, and skills

The safety training materials were assessed by 51 individuals, including 32 teacher aides, 18 special education teachers, and 1 principal (Table 1).

Table 1

Respondents

	n	Percentage
Teacher aide	32	63%
Special education teacher	18	35
Administrator	1	2
Total	51	100%

Although one-half of the special education paraprofessionals and professionals who assessed the materials worked at the upper elementary levels, the respondents represented a full range of grade levels (Table 2).

Table 2

Grade Levels

	n	Percentage*
Preschool	5	10%
Lower elementary (K-3)	7	14
Upper elementary (4-6)	26	51
Middle (7-9)	5	10
Secondary (10-12	7	14
All the above	3	6
Other	4	8
Total	57	113

* Respondents checked all that applied.

The safety training curriculum was rated "good" or "excellent" by at least one-half of the special education professionals and paraprofessionals on the following criteria.

- clear and organized format
- comprehensive content
- clear educational philosophy
- appropriate training methods
- various approaches to safety
- feedback for decisionmaking
- relevant examples and demonstrations
- adaptable to changing needs/conditions
- identifies aides' learning through performance objectives
- appropriate questionnaires, interviews, observations

(Table 3)

Table 3

Rating of Safety Training Curriculum

Criteria	n	mean*	Percentage rated "good" or "excellent
Clear and organized format	(51)	4.0	77%
Comprehensive content	(51)	3.8	67
Clear educational philosophy	(51)	3.6	63
Appropriate training methods	(49)	3.6	53
Various approaches to safety	(51)	3.5	57
Feedback for decisionmaking	(49)	3.5	55
Relevant examples/demnstratn	(50)	3.5	54
Adaptable changing needs/cndtns	(51)	3.5	53
Identifies learning thr perf objs	(51)	3.5	49
Appropriate data collection	(48)	3.5	46
Adequate data collection	(48)	3.4	46
Provides varied approaches	(51)	3.4	51
Identifies skills/knowledge	(50)	3.3	46
Defines stdnt chrctrstics/intrvntn	(50)	3.4	48
Indicates follow-up procedures	(49)	3.3	45
Reasonable performance expcttions	(51)	3.3	45
Integrates students' indvdl skills into perf lvls & behvior pattrns	(47)	3.3	41
Progressive skills mastry/applctn	(47)	3.3	41
Appropriate assessmnt matrls	(44)	3.3	41
Continuity of modules/activities	(47)	3.2	32
Guides use of time	(45)	3.0	33
Provides reference/bibliography	(43)	2.9	35
Identifies aides' strngth/weaknss	(51)	2.5	25
Offers prnts oppy input/partcptn	(31)	1.7	2

* Rated on a scale from 5="excellent" to 1="not at all".

Approximately one-half of the respondents rated the curriculum good or excellent on the extent to which it accomplished the following:

- provided information and direction
- using approval for effective management
- special education population
- ignoring inappropriate behaviors
- crisis intervention procedures

Table 4

Extent to Which the Curriculum Provided Information and Direction

	n	mean	Percentage rated "good" or "exclint"
Using approval for effective management	(46)	3.5	62%
Special education population	(47)	3.5	51
Ignoring inappropriate behaviors	(45)	3.4	47
Crisis intervention procedures	(47)	3.4	47
Time-out	(44)	3.1	32

* Rated on a scale from 5="excellent" to 1="not at all".

One-half of the respondents rated the curriculum "good" or "excellent" in the extent to which it meets the needs of special education teacher aides.

Table 5

Extent to Which Curriculum Meets Needs

	n	mean	Percentage rated "good" or "exclint"
Special education teacher aides	(49)	3.1	49%
Students	(49)	3.1	43
Special education teachers	(37)	2.9	43
Administrators	(34)	2.9	39
Overall usefulness	(46)	3.0	64

* Rated on a scale from 5="excellent" to 1="not at all".

More than one-half of the respondents indicated that they would modify the curriculum (Table 6).

Table 6

Would You Change the Curriculum?

	Percentage
Yes	57%
No	43

Specific modifications were recommended by 20 respondents. Nine respondents recommended that the curriculum be more realistic; 4 recommended that it be developed further; 3 recommended that safety courses should be designed specific to programs (Table 7).

Table 7

Suggestions for Changing the Curriculum

	n
More realistic	6
Further development	4
Design course for specific prgms	3
More on time-out room	2
Follow up in small groups	2
More about specific students	2
Add a CPR course	1
Total	20

Four-fifths of the respondents answered positively to an item asking whether they supported developing the curriculum further (Table 8).

Table 8

Would You Develop the Curriculum Further?

	Percentage
Yes	83%
No	16

Specific recommendations for development were offered by 39 respondents. Nine recommended including examples and demonstrations for managing students in different situations. Interestingly, six respondents recommended using the video to orient all new paras while four respondents recommended training aides through direct observation rather than by video. Other recommendations included involving part- and full-time aides, including lunch room, bus duty, and time-out room procedures, and demonstrating skills for handling physically disabled students (Table 9).

Table 9

Suggestions For Further Curriculum Development

	n
Show how to handle the children in different situations	9
Use video to orient all new paras	7
Train aides by observation not by video	4
Involve part- and full-time aides	4
Include lunch room, bus duty, time-out room procedures	4
Demonstrate skills for handling physically disabled	4
More teacher/para interaction	3
Include information re: medication and behavior	1
Certify aides in CPS, Heimlich, seizures	1
Life skills	1
More on team meetings	1
Total	39

More than one-third of additional comments suggested that all aides, including part-time and substitute aides, should view the videotape (Table 10).

Table 10

Additional Comments

	n
Video should be viewed by new aides, incl pt-time & subs	11
Experienced teacher aides should train/follow-up new aides	5
Video was not realistic	3
More exposure to children before beginning a job	3
Thanks for the program	2
Training in CPR, Heimlich, seizures	2
Continue throughout year	2
Specials should be covered	1
On-the-job training is best	1
Focus on student safety	1
The program should be improved	1
More on physical needs and behavior problems	1
Class was a good review	1
Total	34

D. Objective 3 Results: Field-Testing

The videotape and training materials were field-tested in three buildings of the Nassau BOCES special education program: Pasadena and East Broadway (upper elementary noncategorical programs) and Carman Road (physically handicapped). Ten hours of instruction in on-the-job accident and injury prevention were provided to special education teacher aides in a workshop series consisting of an orientation meeting and four subsequent 2-hour sessions.

Orientation provided an overview of handicapped populations and of the types of accidents and injuries which threaten safety of special education personnel. Subsequent sessions provided teacher aides with in-depth opportunity to study personal safety with an experienced special education person. Training strategies included the use of local examples, discussion to maximize understanding and reinforcement, and summaries of material to emphasize safety consciousness of teacher aides.

Participants rated the workshop series on various criteria including relevance, appropriate training methods, clarity of presentation, clearly expressed educational philosophy, effective utilization of teaching materials, use of examples, identification of strengths and weaknesses, program specific adaptations, opportunity for participation, appropriate use of feedback, outlines of important material to emphasize teacher awareness and safety, summaries to maximize understanding and reinforcement, reasonable performance expectations, appropriate assessment and evaluation materials, and satisfaction with the training program.

Forty aides assessed the first training, 76 assessed the second, and 44 assessed the third (Table 11).

Table 11

Schools of Workshop Participants

School	First Training		Second Training		Third Training	
	n	%	n	%	n	%
Pasadena	(20)	50%	(27)	36%	(24)	55%
East Broadway	(19)	48	(15)	19	-	-
Carmen Road	-	-			(19)	43
Unidentified	(1)	2	(34)	45	(1)	2
Total	(40)	100%	(76)	100%	(44)	100%

Three-fourths of the respondents who participated in the first training worked at the upper elementary level, grades 4-6. The next largest groups, nearly one-fifth and one-tenth respectively, worked at the intermediate level (7-9) and the secondary level (10-12). For the second training, one-half of the teacher aides worked at the upper elementary level. The next largest groups, nearly one-fifth and one-eighth respectively, worked at the secondary and lower elementary levels. Nine-tenths of the aides who participated in the third training worked at the upper elementary level (Table 12).

Table 12

Levels of Workshop Participants

Level	First Training		Second Training		Third Training	
	n	%	n	%	n	%
Preschool	-	-	(4)	6%	-	-
Lower elementary	-	-	(9)	13	-	-
Upper elementary (4-6)	(30)	75%	(33)	49	(38)	91%
Intermediate (7-9)	(7)	18	(6)	9	(3)	7
Secondary (10-12)	(4)	10	(1)	17	(2)	2
Timeout	(2)	5	-	-	-	-
Other	(1)	2	(4)	6		
Total	(44)	110%*	(67)	100%	(44)	100%

* Respondents gave more than 1 response.

Aides rated the safety training workshops on criteria relating to organization and content. Virtually all respondents rated the workshops "high" or "highest" on:

- effectiveness of presenter
- expertise/knowledge of presenter, and
- responsiveness of presenter to participants.

At least four-fifths of the respondents rated the workshops "high" or "highest" on:

- encouraged discussion of issues
- scheduling of issues
- appropriate pacing
- comprehensive content, and
- overall satisfaction.

Ratings for certain assessment improved substantially between the first and third ratings, indicating positive development of the program. These improved areas included: relevent examples and demonstration, relevance to needs, materials and visual aides, and overall satisfaction (Table 13).

Table 13

Organization and Content of Safety Training Workshop

Criteria	First Training		Second Training		Third Trainng	
	mean	%	mean	%	mean	%
Effectiveness of presenter	4.8	95%	4.8	100%	4.9	100%
Expertise/knowlege of presenter	4.7	100%	4.6	96%	4.8	100%
Responsiveness to participants	4.7	92%	4.8	98%	4.9	100%
Encouraged discussion of issues	4.5	85%	4.6	93%	4.4	88%
Scheduling	4.5	85%	3.5	58%	4.5	84%
Appropriate pacing	4.3	87%	4.4	89%	4.4	96%
Comprehensive content	4.3	80%	4.4	88%	4.5	89%
Relevant examples/demonstration	4.0	72%	4.0	70%	4.4	91%
Relevant to needs	3.8	57%	3.8	62%	4.1	82%
Materials and visual aids	3.5	47%	3.1	38%	3.8	87%
Overall satisfaction	4.2	80%	4.3	86%	4.5	93%

* Rated on a scale from 5=highest to 1=lowest.

Four-fifths of first and second training participants and nine-tenths of third training participants indicated that the workshop effectively increased their knowledge of concepts and content, awareness of topics significance, and safety skills.

Table 14

Effectiveness of Safety Training Workshop

Area of increased professional development	Mean rating*	Percentage rated "high" or "highest"				
	First training		Second training		Third training	
	mean	%	mean	%	mean	%
Knowledge of concepts and content	4.2	80%	4.0	80%	4.5	91%
Safety skills	4.1	80%	4.0	77%	4.4	88%
Awareness of topic's significance	4.1	80%	3.9	75%	4.4	88%

* Rated on a scale from 5=highest to 1=lowest.

Seventeen aides indicated elements of the workshop that were particularly useful. Most frequently mentioned was the sharing of experiences (23%). Other useful elements were:

- principles of personal safety
- all
- understanding a crisis situation
- role of the aide, and
- discussions with instructor (Table 15).

Table 15

Elements of Workshop That Were Particularly Useful

	n
Sharing experiences	4
Principles of personal safety	2
All	2
Understanding a crisis situation	2
Roles of the aide	2
Discussion with instructor	2
Incident reports	1
Rules and regulations	1
Knowing I can get into records	1
Total	17

Fourteen aides offered recommendations for improving the workshops. Most frequently recommended were: including teachers in meetings and providing more general information, e.g., fewer class-specific stories (Table 16).

Table 16

Recommendations for Improving the Workshops

	n
Include teachers in meetings	4
More general information (fewer class-specific stories)	4
Include part-time paras	3
Continue workshop	1
Include a tape or video	1
Each child has different needs	1
	14

E. Objective 4 Results: Handbook

The handbook developed through this project addressed classroom management skills and provided information for effective management of daily classroom and crisis situations.

Section I of the handbook focused on special education populations, particularly their academic and behavioral characteristics. The handbook presented information which would allow teacher aides to understand and appreciate reasons for students' behavior.

Section II analyzed accidents and injuries commonly sustained by special education teacher aides with attention to time of day,

type of activity, antecedent events, and consequences. Providing teacher aides with this information permits better insight into their own "safety behavior".

Section III presented specific intervention techniques for reducing the probability of accident and injury to teacher aides.

The Safety Training Handbook can be consulted as a reference throughout the school year. The videotape and the safety training handbook will be used to continue a program of safety orientation and training for teacher aides in subsequent years.

F. Objective 5 Results: Dissemination

The safety orientation videotape and training handbook were disseminated within the Nassau BOCES special education program, to special education programs in the 56 Nassau County school districts, and to other special education programs in New York State. Copies of the safety orientation videotape are available for loan through the BOCES videotape library.

The orientation videotape and safety training handbook developed by this project can be used by special education programs locally, across the state, and nationally. The teacher aide training process was documented so as to provide a model for replication by similar ventures in other regions throughout the country.

Dissemination to other areas in order to promote safety awareness and replication of the project model shall be accomplished through participation in local, regional, and national conferences of professional associations; providing information and materials to the New York State Education Department; offering technical assistance and support to other local and regional efforts by providing information and materials to parents, professional groups, service providers, public school staff, and agencies; and preparing materials for inclusion in the SPECIALNET electronic database and the ERIC Clearinghouse.

Dissemination activities were documented by the Project Coordinator, as were requests for additional information and materials.

G. Summary of Impact

The project developed materials and provided training to enhance the knowledge and skills of teacher aides regarding behaviors, conditions, skills, and strategies for preventing accidents and injury to special education personnel.

It was hypothesized that there would be a decline in the number of accidents and injuries to special education personnel particularly in those buildings where the safety orientation and training materials were field-tested, whereas no corresponding decline would occur in the other Divisions of Nassau BOCES. To test this hypothesis, data was collected regarding numbers and types of accidents and injuries to BOCES personnel pre- and post-training to determine the extent to which this pilot program was associated with reduction in safety incidents.

Sixty-one accidents and injuries were reported by personnel and students in schools and programs administered by the Nassau BOCES Division of Special Education between February 17, 1987 and October 23, 1987, prior to project implementation. Special education personnel lost ninety-eight (98) workdays as a consequence of on-the-job accidents and injuries. These 98 days represented nine-tenths of days lost by all BOCES personnel due to accidents and injuries. Apparently, accidents and injuries involving special education personnel were severe, requiring disproportionally more absence than accidents and injuries which involve personnel from all other Divisions of Nassau BOCES. Combined absences of personnel from the other four Divisions of Nassau BOCES accounted for just one-tenth of total days lost due to personnel accidents and injuries.

More than one-third of the accidents and injuries to teacher aides between February and October 1987 were student-related. Four-fifths of the accidents and injuries involved the employees' back, neck, or head.

Between July 1, 1988 and May 18, 1989, after program implementation, there were a total of 50 accidents and injuries in Nassau BOCES programs; 29 in programs of the Division of Special Education and 21 in other Nassau BOCES programs. Eight incidents occurred at the three schools where the trainings were conducted.

Thus, prior to training, there were 61 safety incidents over 8 months; after the training, there were 50 safety incidents over 11 months.

More than one-third of the accidents and injuries to teacher aides after the training 1987 were student-related. This is the same proportion as before the training.

The accidents seem to have been less serious after the training. Whereas prior to program implementation, four-fifths of the accidents and injuries involved the employees' back, neck, or head, after the training three-fifths of accidents and injuries involved these sensitive areas.

Special education personnel lost 166 workdays as a consequence of on-the-job accidents and injuries. These 166 days represented one-half of days lost by <u>all</u> BOCES personnel due to accidents and injuries; a far cry from the nine-tenths of all absences it had previously represented. Thus, accidents and injuries involving special education personnel still required more absence than accidents and injuries involving personnel from all other Divisions of Nassau BOCES, however this proportion was radically reduced. Whereas combined absences of personnel from the other four Divisions of Nassau BOCES previously accounted for just one-tenth of total days lost due to personnel accidents and injuries, they now represented a full one-half of all absences due to safety incidents.

The three programs where the trainings had been conducted continued to experience a disproportionate number of safety incidents, 27% of all Special Education incidents. However, whereas accidents and injury in special education previously accounted for 98% of all accidents and injuries, the Division now accounted for 58% of the accidents, a large reduction.

Finally, comments by the aides throughout the training noted that they felt, for the first time, that they were being treated as professionals with distinct training needs.

Thus, based upon (a) the reduction in the number of accidents and injuries in Nassau BOCES programs; (b) the reduction in accidents and injuries involving employees' back, neck, or head; (c) the marked reduction in the proportional number of days lost; (d) the marked reduction in the proportion of safety incidents in the Division of Special Education as compared to the other Divisions, and (e) the positive reaction from the teacher aides .... we conclude that the safety training program was effective in its first year.

The program shall be continued within the organization to provide for safety orientation of teacher aides, and materials shall continue to be disseminated.